WE CLAIM:

1. A resistive touch screen transmissive of visible light comprising:

a top sheet movable toward a bottom substrate under the influence of a touch input, the top sheet comprising a first conductive polymer layer facing a second conductive polymer layer disposed on the bottom substrate, the touch screen configured for electronic coupling to controller electronics that use signals generated when the first and second conductive polymer layers make local contact to determine the position of local contact.

2. The resistive touch screen of claim 1, wherein the first conductive polymer layer has a sheet resistance of 1000 ohms per square or greater.

3. The resistive touch screen of claim 1, wherein the first conductive polymer layer has a sheet resistance in the range of 1000 ohms per square to 15,000 ohms per square, inclusive.

4. The resistive touch screen of claim 1, wherein the second conductive polymer layer has a sheet resistance of 1000 ohms per square or greater.

5. The resistive touch screen of claim 1, wherein the second conductive polymer layer has a sheet resistance in the range of 1000 ohms per square to 15,000 ohms per square, inclusive.

6. The resistive touch screen of claim 1, wherein the conductive polymer layers have sizes and sheet resistances that allow a data sampling rate of at least 30 coordinates per second.

7. The resistive touch screen of claim 1, wherein the conductive polymer layers have sizes and sheet resistances that allow a data sampling rate of at least 100 coordinates per second.

8. The resistive touch screen of claim 1, wherein the internal transmission of the conductive polymer layers taken together is 85% or greater.

9. The resistive touch screen of claim 1, wherein the first conductive polymer is biased positively relative to the second conductive polymer layer.

10. The resistive touch screen of claim 1 configured to operate using controller electronics that apply 3 to 5 volts across one or both of the conductive polymer layers.

11. The resistive touch screen of claim 1 having a 4-wire construction.

12. The resistive touch screen of claim 1 having a 5-wire construction.

13. The resistive touch screen of claim 1 having a 7-wire construction.

14. The resistive touch screen of claim 1 having an 8-wire construction.

15. A resistive touch screen system comprising:

a top sheet movable toward a bottom substrate under the influence of a touch input, the top sheet comprising a first resistive layer facing a second resistive layer disposed on the bottom substrate, at least one of the first and second resistive layers comprising a conductive polymer; and

controller electronics electronically coupled to the first and second resistive layers, the controller electronics configured to use signals generated when the first and second resistive layers make local contact to determine the position of local contact,

wherein the touch screen systems yields 100,000 or more touch inputs in the same location before failure of the device when the controller electronics are operated at about 3 to 5 volts.

16. The resistive touch screen system of claim 15, wherein both the first and second resistive layers comprise conductive polymers.

17. A method of making a touch sensor comprising a resistive layer disposed on a substrate comprising:

selecting a desired minimum sampling rate for the touch sensor;

selecting a touch sensor construction and dimensions for the resistive layer;

determining the RC constant of the resistive layer given the selected dimensions;

determining a maximum sheet resistance for the resistive layer based on the determined RC constant; and

coating a conductive polymer material on the substrate to form the resistive layer at a thickness that gives a sheet resistance that does not exceed the maximum sheet resistance.

18. The method of claim 17, wherein the conductive polymer material is coated at a thickness that gives an internal transmission of 85% or greater.